

***National Animal Health Surveillance  
White Paper***

***September 2003***

DRAFT

## **National Animal Health Surveillance in the United States**

### ***Background and Purpose:***

The Animal Health Safeguarding review made clear that the United States must create and maintain a comprehensive, coordinated, and integrated animal health surveillance system to ensure that accurate and appropriate information was available to decision makers. The primary recommendation recorded on page three of The Animal Health Safeguarding Review states:

*“Congress and the United States Department of Agriculture must provide funding and act to rebuild the state and national infrastructure for animal disease control, emergency disease preparedness, and response”.*

A National Surveillance System is the cornerstone of this infrastructure.

### ***The Current Animal Surveillance Structure and the Need for Change***

APHIS, Veterinary Services conducts animal health surveillance through a number of existing systems, most of which effectively meet the current needs of the agency. For example, the Market Cattle and Market Swine Identification systems, in conjunction with brucellosis eradication programs, have been successful in nearly eradicating brucellosis from domestic cattle and swine populations. This system is based on collection of animal identification and blood samples from eligible animals at livestock markets and slaughter establishments. Another example of disease surveillance is the passive system of reporting of suspect foreign animal diseases as conducted through private veterinarians and their livestock producing clients. This system relies heavily on the astuteness and willingness of private practitioners to report to animal health authorities suspicious health events observed on the farms and operations they serve. While both of these systems have been effective in meeting their established goals, they are not linked in any way and represent only two components of the fragmented surveillance structure that currently exists. Improvements in animal health and livestock production and direction in appropriately allocating normally limited resources are all encompassing goals of surveillance. The international expectations of scientifically based disease risk management strategies require accurate and timely surveillance data. APHIS, Veterinary Services must no longer subscribe to the paradigm of multiple, disparate systems. To successfully meet the demands of our livestock industry partners and the international agricultural community and to efficiently use the resources available it is imperative that a comprehensive, coordinated and integrated National Surveillance System be established.

### ***The New Direction***

In response to this charge a National Surveillance System is being developed, which will have multiple interrelated components. The focal point of the National Surveillance System is the core surveillance infrastructure which includes a national coordinator, a national steering committee, a national surveillance unit, integrated information systems, necessary legal authorities and a national animal identification system.

The transition from current surveillance activities to a National Surveillance System requires the immediate creation of a critical mass of resources dedicated to the transition, and it is quite clear that development and implementation of a comprehensive, integrated National Surveillance System will require dedicated personnel. Furthermore, the VS strategic plan for 2004-2008 emphasizes agency capacity building. Developing a National Surveillance System cannot be treated as a project; it must be viewed as an institutional change. A National Surveillance Unit (NSU) within the APHIS, Veterinary Services, Centers for Epidemiology and Animal Health (CEAH) has been established to address these needs. Although the NSU will be housed at CEAH, this unit will be an integrated Veterinary Services unit. This unit will work closely with various Veterinary Services staffs and personnel to ensure that a comprehensive surveillance system is functioning properly. It is critical that animal health surveillance in the United States be as efficient and coordinated as possible. The NSU will be responsible for collaborating with many aspects of VS, to work towards achieving the goal of developing and maintaining a comprehensive, coordinated, and integrated animal health surveillance system.

The NSU will be a multi-disciplinary unit with veterinary epidemiologists, analysts, technical information specialists and liaison positions (program and field), and will work in collaboration with other groups or persons dedicated to different aspects of the surveillance system. The NSU will provide national leadership in the development and assessment of surveillance strategies, and insure that the baseline data necessary for meaningful analysis are being collected. The NSU, in concert with the National Surveillance Coordinator, will be a key implementer of the National Surveillance System and will provide the technical expertise for surveillance strategies and linkage to program managers and field implementation.

### ***NSU Responsibilities:***

Many operational and strategic processes and decisions will need to be formulated by the NSU. Specific projects may be assigned as development and implementation of the National Surveillance System proceeds.

The overall charge to the NSU includes:

- Serve as the focal point of the National Surveillance System for the collection, processing and delivery of surveillance information for the purposes of action and risk analysis, both domestic and international.

- Be a central source for surveillance data.
- Develop the information infrastructure for the National Surveillance System
- Identify and manage a baseline data set for surveillance.
- Improve early detection of diseases, including early recognition of emerging diseases.
- Evaluate the efficacy of surveillance tools, and combination of tools with respect to their efficacy in a National Surveillance System
- Design and lead the implementation of surveillance systems and strategies, including recommending surveillance strategies to achieve specific surveillance goals
- Evaluate new initiatives and technologies, and make recommendations as to their use.
- Provide analysis of surveillance data
- Coordinate and integrate surveillance activities to maximize the efficiency and minimize the costs of the National Surveillance System.
- Establish linkages, partnerships, and liaisons necessary to carry out elements of this charge.
- Delivering surveillance data and analysis results, with regular reporting, to stakeholders and interested parties.

### ***Complementary Groups and Activities/Partnerships/Liaisons***

The NSU will interact with a number of state, federal, university, and industry partners to effectively implement and monitor an effective National Surveillance System. Necessary collaborations include but are not limited to:

- **National Surveillance Steering Committee (NSSC):** A steering or advisory committee is an important component of the National Surveillance System. The NSSC should be established as soon as possible, and the NSU should have a role in development of the NSSC. The NSSC should focus initial activities on organizational issues. These issues include the mission, operational goals and logistical plan of the committee. A process for prioritizing surveillance goals should be developed early. The NSSC would also be an ideal route for disseminating information to stakeholders and building a national consensus on the approach to be followed.
- **Field Implementation Team (FIT):** A team has been formed which can provide direct integration with the field in the effort to implement the National Surveillance System. This group is already functioning. Their charge is 1) Ground-truthing – To assess implementation feasibility of proposed surveillance initiatives and proposed alterations to existing surveillance systems; 2) System advancement – To identify and propose enhancements to existing surveillance systems with recommendations for implementation; 3) Resource identification – To identify specific resource requirements for the National Surveillance System, and 4) Coordination – To assist in coordination of surveillance activities with

Safeguarding Surveillance Issue Group, Technical Working Group and Surveillance Steering Committee.

- **Technical Working Group:** This group is working to analyze current surveillance tools.
- **Safeguarding Issues Group on Surveillance:** This group is charged with developing specific responses and action plans to answer surveillance related recommendations from the Safeguarding Review.
- **Emerging Issues Unit:** This team is responsible for developing and implementing innovative approaches to identifying and analyzing emerging issues and identifying and using data and information from multiple sources to provide assessments of emerging animal health issues occurring worldwide.
- **National Animal Health Monitoring System:** This group is responsible for collecting, analyzing, and disseminating data on animal health, management, and productivity across the United States. They conduct national studies to gather data and to generate descriptive statistics as well as compiling statistics and information from data collected by other industry sources.
- **VS Application Information Management (AIM) group:** This group coordinates the planning, analysis, design, development, testing, quality assurance, configuration, installation, implementation, integration, maintenance, and/or management of networked systems used for the transmission of information in voice, data, and/or video formats. This group will have a critical role in the IT aspects of the NSU.
- **National ID Development Team:** This is a united effort of several segments of the livestock industry, the U.S. Department of Agriculture, and State animal health officials to develop a national plan for animal identification for disease tracking purposes. Subcommittees on communication, transition, standards, governance and information technology have been established to develop components of the national plan. The group is moving quickly, and expects to have a draft plan completed this summer.
- **National Center for Animal Health Programs (NCAHP):** All surveillance activities conducted for program diseases will need to be coordinated with the NSU. National Animal Health Program Staff veterinarians with the responsibility for program diseases will maintain primary responsibility for planning and oversight of all surveillance for that disease. NSU and NCAHP personnel will coordinate all surveillance activities. The NSU will be responsible for integrating various surveillance methodologies whenever possible, and for making recommendations for surveillance enhancements to NCAHP personnel. In addition the NSU will be a centralized data source for all surveillance data.

- **Emergency Programs Staff (EP):** Surveillance for FADs, and the reporting of such surveillance, should be coordinated with the NSU.
- **Domestic Regionalization Staff (new staff):** Domestic risk assessments conducted by the NSU will support the domestic regionalization staff, and will be needed from a trade facilitation perspective, as well as for assessment of needed domestic surveillance methodologies.
- **Regional Epidemiology Delivery System (REDS):** Initiated by Eastern Regional Epidemiologists. Work plan includes: 1) Enhance coordination and interaction at all levels; 2) Improve program support to regional and area managers; 3) Expand education and training of REOs, AEOs, and VMOs; 4) Facilitate information management and dissemination.
- **FSIS: :Liaison:** An APHIS-FSIS liaison will be working with the NSU on matters pertaining to slaughter plants, FSIS data, or any other matters related to interaction with FSIS.
- **National Veterinary Services Laboratory :** It is anticipated that there will be an NVSL surveillance position created. This person will closely work with the NSU on issues related to laboratories. In addition, the National Animal Health Laboratory Network (NAHLN) coordinator will work closely with the NSU.
- **Emergency Programs liaison to the Armed Forces Medical Intelligence Center:** An APHIS, Veterinary Services veterinarian is stationed at Ft. Detrick, MD, and currently monitors national and international news for outbreaks and potential outbreaks of disease, including those that may be terrorist related, in animal, humans, and plants. This work will be integrated into the NSU, as there is currently little formal follow up to this work.